

REMARKS

Claims 1-18 and 25-39 are all the claims pending in the application. By this Amendment, Applicant amends claims 1, 3-5, and 8-10 to further clarify the invention. These amendments are being made *instead of* the amendments made in the Amendment under 37 C.F.R. § 1.116 filed on August 27, 2004. Since the amendments to the claims made in the Amendment under 37 C.F.R. § 1.116 were not entered by the Examiner (see Advisory Action dated September 16, 2004), these previously proposed amendments are simply omitted from the claims.

In addition, by this Amendment, Applicant rewrites claim 2 into its independent form.

The Examiner indicated that claims 6, 7, 16-18, and 25-39 are allowed. Claims 2 and 12-15 contain allowable subject matter. Claim 2 is rewritten into its independent form including all the recitations of its base claim. Therefore, it is appropriate and necessary for the Examiner to now allow claim 2. Applicant, however, respectfully holds the rewriting of claims 12-15 in abeyance until arguments presented below with respect to independent claim 8 have been considered.

The only remaining rejected claims are claims 1, 3-5, and 8-11. In particular, claims 1, 3-5, and 8-11 stand rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by U.S. Patent No. 5,065,618 to Hodges et al. (hereinafter “Hodges”). Applicant respectfully traverses this rejection in view of the following comments.

To begin, independent claim 1 recites: “estimating a degree of slipperiness of a road surface on which the vehicle is running.” The Examiner asserts that claim 1 is directed to a method of estimating the running state of the vehicle and is anticipated by Hodges.

Hodges teaches a method and an apparatus for measuring the physical profile of a road surface, its roughness *e.g.*, the presence of bumps (col. 1, lines 40 to 51). Specifically, Hodges teaches using a combination of the measured acceleration and force at the wheel hub, along with other characteristics of the tire, to determine the vertical elevation of the road surface. That is, Hodges teaches obtaining $x(t)$ by measuring the acceleration of the hub. The conditions of the dent and convex of the road, commonly known as physical profile of the terrain surface of the road, is obtained from the response characteristic $y(t)$ with respect to $x(t)$ at the time when a force $F(t)$ is exerted to the wheel. The $x(t)$ and $y(t)$ denote vertical displacement of the tire/terrain and vertical displacement of the wheel/hub, respectively (col. 6, lines 18 to 60).

Hodges, however, only teaches measuring the dents and bumps of the road surface and not the degree of slipperiness of the road surface, as recited in claim 1. For example, as shown in Figs. 4 and 5 of the illustrative, non-limiting embodiment of the present invention, the slipperiness of the road is reflected or is visible from the exerted horizontal force or from the horizontal acceleration of a tire. That is, measuring the acceleration or force in the vertical direction is only effective in detecting dents and bumps on the road and not the degree of slipperiness, *e.g.*, not the amount of water film on the road and the frictional coefficient of the road. In short, Hodges estimates the vertical elevation profile of the road and not the degree of slipperiness of the road.

Therefore, “estimating a degree of slipperiness of a road surface on which the vehicle is running,” as set forth in claim 1 is not disclosed by Hodges, which lacks performing horizontal measurements required for determining the degree of slipperiness of the road. For at least this exemplary reason, claim 1 is patentably distinguishable from Hodges. Applicant respectfully

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requests the Examiner to withdraw this rejection of claim 1. Claims 3-5 are patentable at least by virtue of their dependency on claim 1.

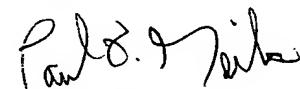
Next, independent claims 8-10 recite features similar to the features argued above with respect to claim 1, namely estimating the degree of slipperiness of the road surface on which the vehicle is running. Since claims 8-10 contain features that are similar to the features argued above with respect to claim 1, those arguments are respectfully submitted to apply with equal force here. Therefore, claims 8-10 are patentably distinguishable from Hodges for at least similar reasons. Claim 11 is patentable at least by virtue of its dependency on claim 10.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Entry and consideration of this Amendment is respectfully requested.

Respectfully submitted,



Paul F. Neils
Registration No. 33,102
(for Richard C. Turner, Reg. No. 29,710)

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

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